

CITY OF PULLMAN, WASHINGTON

CLASS SPECIFICATION

SENIOR ENGINEERING TECHNICIAN

2107

GENERAL PURPOSE:

Serves as the technical lead worker for engineering design, surveying, construction inspection work for the City's public works construction projects; manages the Department's most complex engineering design and public works construction projects.

CLASSIFICATION SUMMARY:

The Senior Engineering Technician serves as the Public Works Department's liaison and manager for complex Public Works construction projects. Duties include the management of financial requirements for multiple funding sources or Federal grants and project moneys, as well as complex construction project design, surveying and inspection. Incumbents are expected to manage the Department's larger, more technically advance projects. The work is performed under the limited supervision of the City Engineer. An employee in this class performs the duties of other employees in the Engineering Department as required or as assigned by supervisory personnel. The Senior Engineering Technician may supervise and coordinate the work of other staff to meet project requirements.

ILLUSTRATIVE EXAMPLE OF ESSENTIAL DUTIES AND RESPONSIBILITIES:

Represents the Public Works Department for multi-agency public works construction projects; Administers grants and contracts and manages complex projects with multiple funding and reporting requirements.

Develops preliminary and final designs for large scale or the Department's most complex Public Works construction projects.

Prepares engineering documents, financial reports and documentation, legal documents, contracts and correspondence for Public Works construction projects.

Manages the Department's large scale public works construction projects including the development of preliminary engineering drawings using field data and profiles, preliminary design on plans and cross sections, estimates of materials, final contract engineering drawings, proposals and contracts, bidder evaluations and recommendations.

Schedules pre-construction meetings, traffic controls, inspection schedules, inspections, and material testing; manages Federal, State and local record keeping; reviews and recommends departmental actions for submittals of requests for design changes and change orders; maintains financial records and develops pay calculations and preparation of monthly pay estimates and project reports.

Manages contractors and consultants; serves as City liaison to contractors and the public and performs quality control/quality assurance activities to ensure that project is constructed according to design and material specifications; maintains accurate daily records of construction activity and materials used and notifies contractor and supervisor of authorized project modifications or non-compliance.

Develops a variety of engineering calculations for street, public utility, and architectural building projects.

Supervises the inspection and testing of materials used by contractors on projects.

Plans, organizes, supervises and performs traffic and traffic control studies and related field work.

Supervises and participates in all phases of field work.

Organizes, lays-out, and completes projects such as construction staking, radial topography, traverse surveying, and level loops.

Maintains and updates accurate maps and engineering files.

Uses computer-aided drafting and mapping software and a variety of personal computer programs such as word processing, spreadsheets, databases and other miscellaneous engineering and general purpose programs.

Attends work on a regular and dependable basis.

Interacts in a professional and respectful manner with city staff and the public.

OTHER JOB FUNCTIONS:

Performs other tasks as assigned.

SELECTION FACTORS:

(Applicants should describe their previous experience and training for each of the following selection factors. These factors will be the basis for selecting the most qualified applicants to be interviewed. Candidates selected for employment must satisfactorily demonstrate possession of these factors during a prescribed probationary period, and afterwards, for continued employment.)

Knowledge of:

- The terminology, methods, and practices of engineering, drafting, preliminary and final design, and surveying, and skill in their application to municipal public works projects;
- The materials, methods, and practices used in public works construction inspection and materials testing, and skill in their application to municipal public works projects;
- Contract development and management;
- Federal and State funding sources and funding administration including reporting requirements;
- Traffic control and other safety standards for public works construction projects.

Ability to:

- Plan, organize, design and manage public works construction projects;
- Supervise staff, contractors and consulting engineers;
- Determine compliance with engineering plans and specifications on a variety of construction projects, and to contact contractors and construction supervisors effectively in securing compliance with specifications;
- Perform precise survey work, keep accurate records, make engineering computations, reduce field notes, and prepare plans and designs for public works projects;
- Read and understand blueprints, engineering plans and specifications;

- Combine sound engineering judgment and common sense to solve a variety of design and construction problems;
- Use computer programs such as computer-aided drafting and mapping software and a variety of personal computer programs such as word processing, spreadsheets, databases and other miscellaneous engineering and general purpose programs;
- Deal courteously and tactfully with contractors and the public;
- Work outdoors in a variety of weather conditions, walk safely on and through rough terrain, and work in vehicular traffic areas;
- Obtain nuclear moisture/density gauge certification and traffic flagger's certification;
- Establish and maintain effective working relationships with division and department personnel, contractors, and the public;
- Provide quality services in a cost-effective manner and to recommend improved methods of performing the work;
- Physically perform the essential functions of the job;
- Obtain and maintain a valid driver's license and a safe driving record.

MINIMUM QUALIFICATIONS:

(Persons applying for a position of this class should have any combination of the following experience and training.)

College level course work in Civil Engineering, Construction Management or other related field in a depth and breath sufficient to provide an understanding of engineering, project management principles, and public funding mechanisms for Public Works projects to allow the incumbent to manage public works construction projects; and five years of a variety of experience in public works engineering, including design, surveying, drafting, and construction inspection experience; or any equivalent combination of experience and training.

TOOLS AND EQUIPMENT USED:

Personal computer and ancillary equipment, including plotter, digitizer, word processing, spreadsheet, database and computer-aided-design software; manual and electronic surveying equipment; traffic study equipment; inspection and materials testing equipment; office equipment; standard drafting tools; 4-pound hammer; 10-pound sledgehammer; camera; motor vehicle; portable radio.

WORK ENVIRONMENT:

(The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.)

Work is performed mostly in office settings. Outdoor work is required in the inspection of various land use developments, construction sites, or public works facilities. The employee occasionally works near moving mechanical parts, and in high, precarious places, and near open excavations. The employee is occasionally exposed to wet and/or humid conditions, extreme temperature conditions, fumes or airborne particles, raw sewage, toxic or caustic chemicals, risk of electrical shock, and vibration. The employee occasionally works in busy streets near heavy vehicular traffic. The employee occasionally uses 4-pound hammers and 10-pound sledgehammers for an extended period of time. The employee must occasionally lift and/or move up to 100 pounds.

